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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,599	10/17/2003	Gregory A. Bergwin	050433.003	2271

7590 03/26/2007  
James E. Bradley  
Bracewell & Patterson, LLP  
P.O. Box 61389  
Houston, TX 77208-1389

EXAMINER
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MCGRAW, TREVOR EDWIN

ART UNIT	PAPER NUMBER
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3752

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/688,599

Applicant(s)

BERGWIN ET AL.

Examiner

Trevor McGraw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 8-11 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-11 and 13-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/17/03, 02/26/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, 8, 9, 13, 14, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Chou (US 5,813,605).

In regard to Claims 1, 6, 8, 9, 13, 14, 16 and 17, Chou teaches an irrigation system having a reservoir (70), a pump (20) connected to an outlet of the reservoir (Figures 1-4) which injects an additive into the flowline (27) where at least one sensor (60) monitors at least one characteristic of the additive and a feedback control system that reads data from the sensor and controls the flow rate of the additive through the pump (Column 3, Line 24-Column 4, Line 50) where the sensor comprises a soil sensor adapted to be embedded in soil (Figure 4) where the sensor determines the humidity of the fluid being dispensed (Column 4, Line 51-Column 5, Line 66; Column 3, Lines 37-56).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou (US 5,813,605) in view of Thompson et al. (US 5,088,621).

In regard to Claims 1-3, 5 and 10, Chou as described and taught above fails to teach where a flow meter is adapted to be positioned within a flowline and where a fluid level sensor is positioned inside of the reservoir (70). However, Thompson et al. (US 5,088,621) teaches that it is known in the art to provide a fluid level sensor within a reservoir for sensing the level of a fluid within a vessel. It would have been obvious to one having ordinary skill in the art at the time the present invention was made to provide the reservoir vessel of Chou with the fluid level sensor of Thompson et al., in order to provide a manner in which the fluid level can be determined to alert a monitor or user to add additional fluid into the reservoir.

Claims 1, 2, 4 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Chou (US 5,813,605) in view of Diakonov et al. (US 6,740,216).

In regard to Claims 1, 2, 4 and 11, Chou as described and taught above, fails to teach a pH sensor adapted to be positioned in a flowline for monitoring the basic and

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acidity levels of the fluid being dispensed. On the other hand, Diakonov et al. teaches that it is known to have a pH sensor positioned within a flowline (Figure 11) to determine the pH level of an additive and water mixture in a flowline. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the flowline of Chou with the pH sensor of Diakonov et al., in order to provide for a fail safe system that terminates dispensing of the a when the pH level of the fluid is to high for sustaining life of the organisms that the fluid is being dispensed towards.

### ***Conclusion***

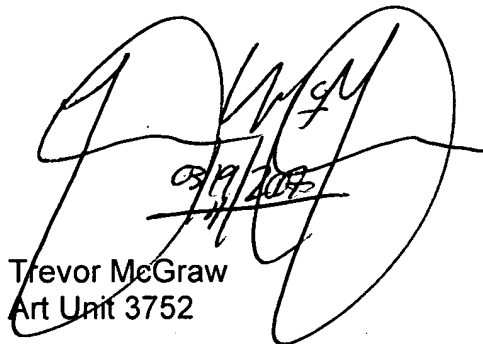
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hansen (US Pub No. 2001/0020647).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trevor McGraw whose telephone number is (571) 272-7375. The examiner can normally be reached on Monday-Friday (2nd & 4th Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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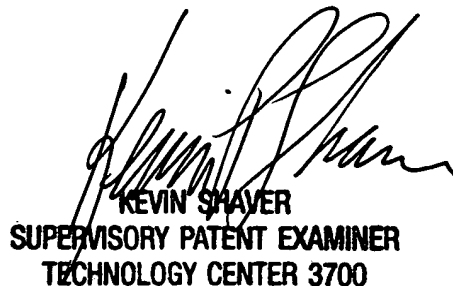
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



08/19/2009

Trevor McGraw  
Art Unit 3752

TEM



KEVIN SHAVER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700